SPYWOLF

Security Audit Report

Completed on

May 3, 2023

OVERVIEW

This audit has been prepared for **Gatsby Inu** to review the main aspects of the project to help investors make make an informative decision during their research process.

You will find a a summarized review of the following key points:

- ✔ Contract's source code
- ✔ Owners' wallets
- ✔ Tokenomics
- ✔ Team transparency and goals
- ✔ Website's age, code, security and UX
- ✔ Whitepaper and roadmap
- ✔ Social media & online presence

The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal

- SPYWOLF Team -

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Gatsby Inu

PROJECT DESCRIPTION

According to their website:

Gatsby inu ($gatsby) is a project built on the bsc chain platform. Gatsby inu is built and inspired by the friendship between humans and animals.and we took a dog as an inspiration because this is a loyal animal. In addition, by applying many exclusive features such as nft, staking, launchpad, dex dapp, gamefi... Gastby will build a huge ecosystem where members will be able to earn profits, share information sharing.

Release Date: Presale starts in May, 2023

Category: Meme token

CONTRACT INFO

Token Name	Symbol
Gatsby Inu	GATSBY

Contract Address
0x440dDf1132dAA39f2667c8E9712b71171B788521

Network	Language
Binance Smart Chain	Solidity

Deployment Date	Verified?
May 02, 2023	Yes

Total Supply	Status
100,000,000,000,000,000	Not launched

TAXES

Buy Tax	Sell Tax
10%	10%

*Taxes can be changed in future

Our Contract Review Process

The contract review process pays special attention to the following:

- Testing the smart contracts against both common and uncommon vulnerabilities
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat

TOKEN TRANSFERS STATS

Transfer Count	5
Uniq Senders	3
Uniq Receivers	4
Total Amount	250000000000000000 GATSBY
Median Transfer Amount	50000000000000000 GATSBY
Average Transfer Amount	50000000000000000 GATSBY
First transfer date	2023-05-02
Last transfer date	2023-05-02
Days token transferred	1

SMART CONTRACT STATS

Calls Count	14
External calls	10
Internal calls	4
Transactions count	11
Uniq Callers	3
Days contract called	1
Last transaction time	2023-05-02 09:08:32 UTC
Created	2023-05-02 08:24:17 UTC
Create TX	0x59065e45b21a0708f6b1d5bbb266de105e4f7bd53993986a055df36d53121556
Creator	0x022b71aff611c6266495e593cd84f29607326272

VULNERABILITY CHECK

Design Logic	Passed
Compiler warnings.	Passed
Private user data leaks	Passed
Timestamp dependence	Passed
Integer overflow and underflow	Passed
Race conditions and reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious Event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed
Fallback function security	Passed

THREAT LEVELS

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.

High Risk

WARNING!

This is a proxy contract and the contract’s current logic can be changed at any time in the future.

FOUND THREATS

⚠ High Risk

Owner can set buy/sell fees up to 100%.
When fees are above 0, there will be certain amount of tokens that will be deducted from every transaction that users make.
Deducted amount will be as much as the fees % from total amount that user had bought, sold and/or transferred.

```
uint256 private _maxFee;
_maxFee = 10000;

function addTier(
uint256 _ecoSystemFee, uint256 _liquidityFee, uint256 _taxFee, uint256 _ownerFee,
uint256 _burnFee, address _ecoSystem, address _owner ) public onlyOwner {
    _addTier(_ecoSystemFee, _liquidityFee, _taxFee, _ownerFee, _burnFee, _ecoSystem, _owner);
}

function _addTier(uint256 _ecoSystemFee, uint256 _liquidityFee, uint256 _taxFee,
    uint256 _ownerFee, uint256 _burnFee, address _ecoSystem, address _owner
) internal returns (FeeTier memory) {
    FeeTier memory _newTier = checkFees(
        FeeTier(_ecoSystemFee, _liquidityFee, _taxFee, _ownerFee, _burnFee, _ecoSystem, _owner)
    );
    excludeFromReward(_ecoSystem);
    excludeFromReward(_owner);
    excludeFromFee(_ecoSystem);
    excludeFromFee(_owner);
    feeTiers.push(_newTier);

    return _newTier;
}

function calculateFee(uint256 _amount, uint256 _fee) private pure returns (uint256) {
    if (_fee == 0) return 0;
    return _amount.mul(_fee).div(10**4);
}

function setEcoSystemFeePercent(uint256 _tierIndex, uint256 _ecoSystemFee) external onlyOwner checkTierIndex(_tierIndex)
.....................
}
function setLiquidityFeePercent(uint256 _tierIndex, uint256 _liquidityFee) external onlyOwner checkTierIndex(_tierIndex) {
.....................
}
function setTaxFeePercent(uint256 _tierIndex, uint256 _taxFee) external onlyOwner checkTierIndex(_tierIndex) {
.....................
}
function setOwnerFeePercent(uint256 _tierIndex, uint256 _ownerFee) external onlyOwner checkTierIndex(_tierIndex) {
.....................
}
function setBurnFeePercent(uint256 _tierIndex, uint256 _burnFee) external onlyOwner checkTierIndex(_tierIndex) {
.....................
}
```

- Recommendation:
  - Considered as good practice is buy and sell fees combined not to exceed 25%.

FOUND THREATS

⚠ High Risk

Owner can blacklist address.
Blacklisted addresses won't be able to buy/sell/transfer the token.

```
function setWhitelistBuySell(address _user, bool _wl) public onlyOwner {
    whitelistBuySell[_user] = _wl;
}

function blacklistAddress(address account) public onlyOwner {
    _isBlacklisted[account] = true;
    _accountsTier[account] = 0;
}

 modifier preventBlacklisted(address _account, string memory errorMsg) {
    require(!_isBlacklisted[_account], errorMsg);
    _;
}

function isNotLockBuySell(address _user) public view returns (bool){
    return whitelistBuySell[_user] || unlockBuySell;
}

function _transfer(
    address from,
    address to,
    uint256 amount
)
    private
    preventBlacklisted(_msgSender(), "Gatsby: Address is blacklisted")
    preventBlacklisted(from, "Gatsby: From address is blacklisted")
    preventBlacklisted(to, "Gatsby: To address is blacklisted")
{
        require(isNotLockBuySell(from), "Gatsby: Lock");
.............
}
```

Informational

Owner can withdraw any tokens from the contract.
When this function is present, in cases tokens sent into the contract by mistake or purposefully, contract's owner can retrieve them.

```
function withdrawBnb(uint256 _amount) public onlyOwner {
    payable(msg.sender).transfer(_amount);
}

function withdrawToken(address _token, uint256 _amount) public onlyOwner {
    IGatsbyInu(_token).transfer(msg.sender, _amount);
}
```

Owner can set max transaction limit without limitation.
If max transaction limit is set to low number, this can lead to inability sell.

```
function setMaxTxPercent(uint256 maxTxPercent) external onlyOwner {
    _maxTxAmount = _tTotal.mul(maxTxPercent).div(10**4);
}
```

Owner can exclude address from fees.
When address is excluded from fees, the user will receive the whole amount of the bought, sold and/or transferred tokens.

```
function excludeFromFee(address account) public onlyOwner {
    _isExcludedFromFee[account] = true;
}
```

RECOMMENDATIONS FOR

GOOD PRACTICES

1. Consider fundamental tradeoffs
2. Be attentive to blockchain properties
3. Ensure careful rollouts
4. Keep contracts simple
5. Stay up to date and track development

Gatsby Inu

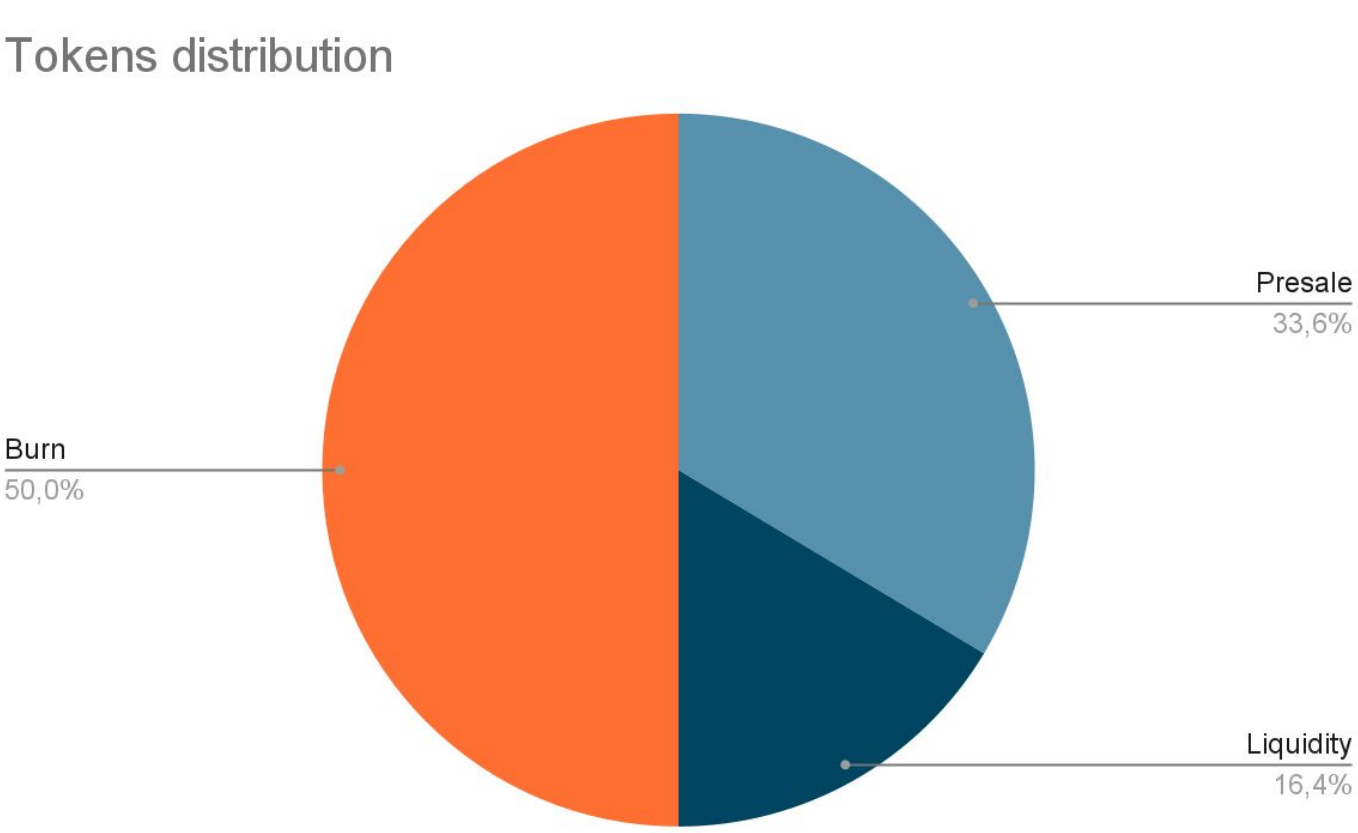
GOOD PRACTICES FOUND

- ✔ The owner cannot mint new tokens after deployment
- ✔ The smart contract utilizes "SafeMath" to prevent overflows

TOKENOMICS

The following tokenomics are based on the project's whitepaper and/or website:

- 33.6% - Presale
- 16.4% - Liquidity
- 50% - Burn



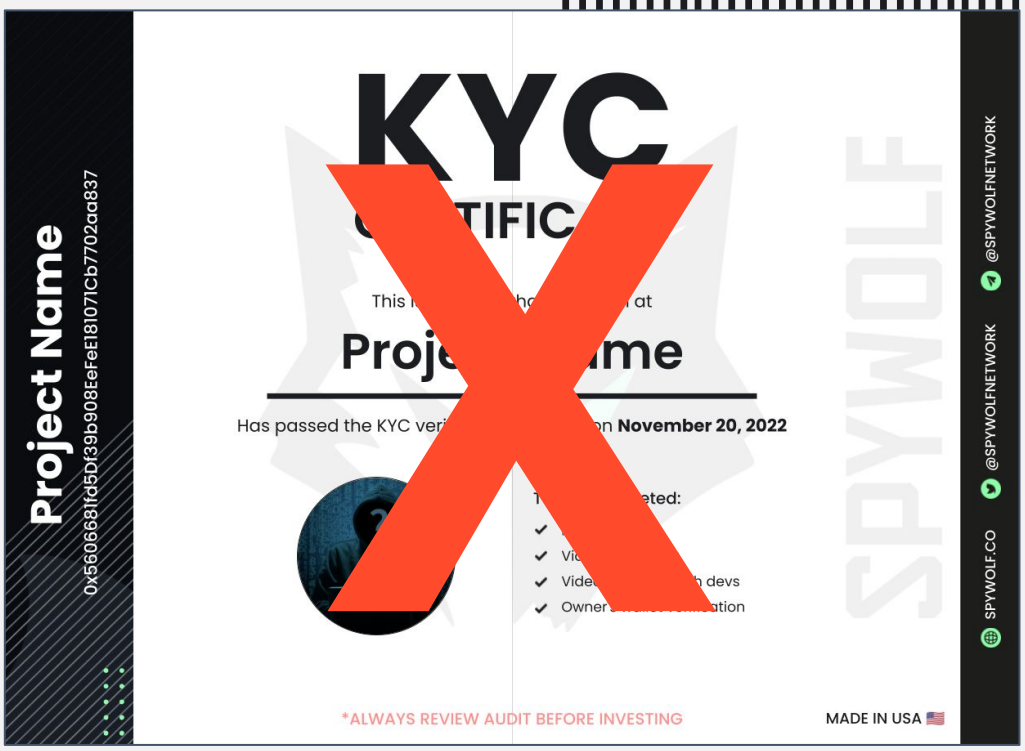
THE TEAM

⚠️ The team is annonymous

KYC INFORMATION

⚠️ No KYC

We recommend the team to get a KYC in order to ensure trust and transparency within the community.



WEBSITE

Website URL
https://gatsbyinu.io/

Domain Registry
https://www.namecheap.com/

Domain Expiration
2024-04-16

Technical SEO Test
Passed

Security Test
Passed. SSL certificate present

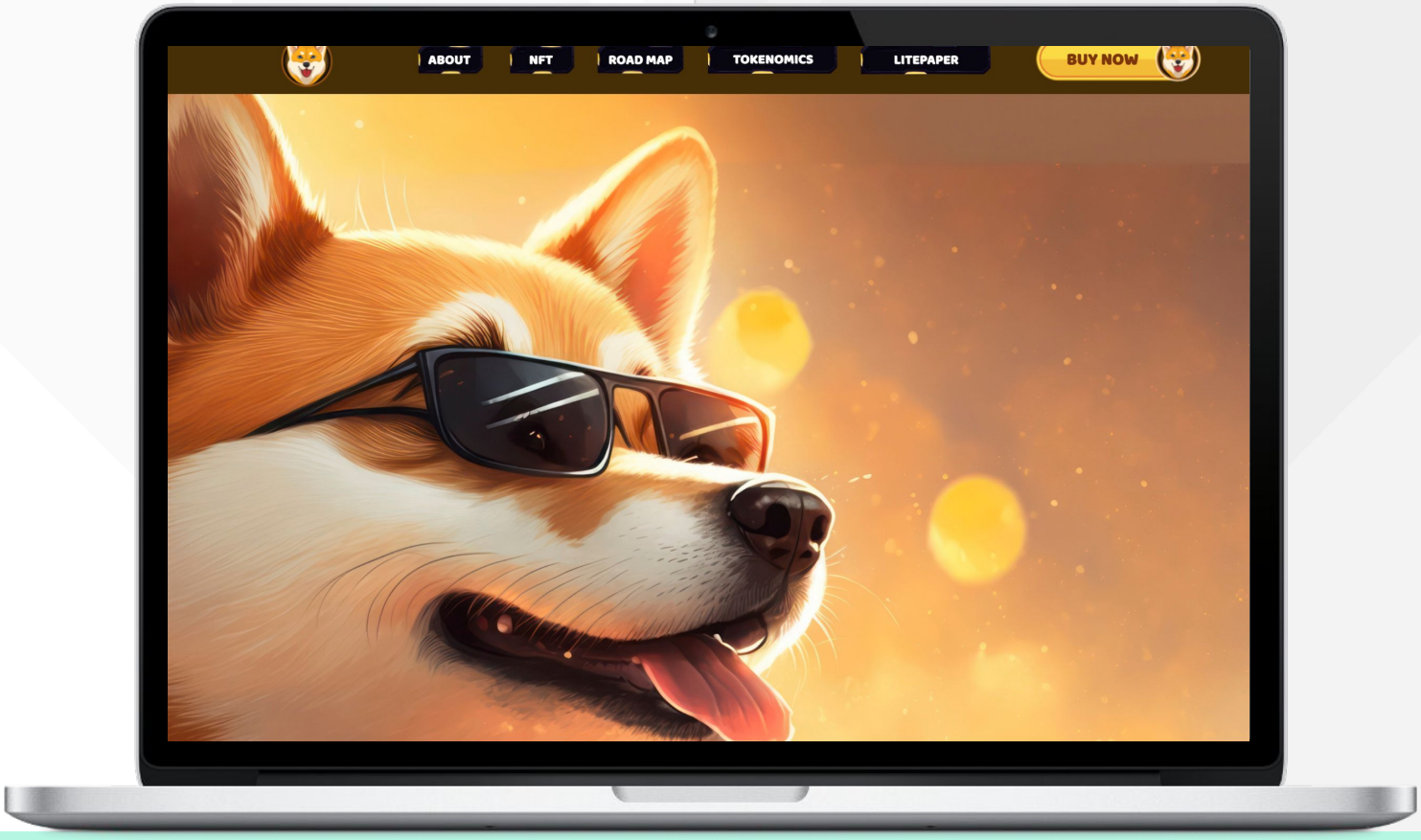
Design
Single page design with appropriate color scheme and graphics.

Content
The information helps new investors understand what the product does right away. No grammar mistakes found.

Whitepaper
Explanatory.

Roadmap
Yes, goals set without time frames.

Mobile-friendly?
Yes



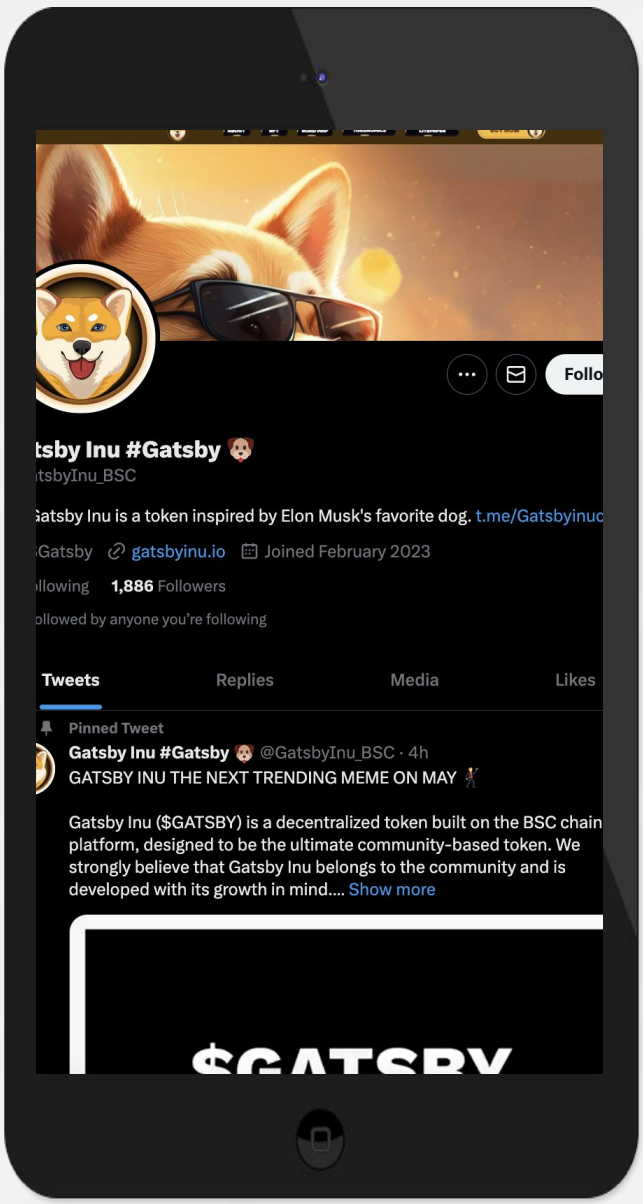
gatsbyinu.io

SOCIAL MEDIA

& ONLINE PRESENCE

ANALYSIS

Project's social media pages are active



Twitter

@GatsbyInu_BSC

- 2 001 followers
- Posts frequently
- Active

Discord

- Not available

Telegram

@Gatsbyinuchannel

- 3 007 members
- Announcement channel

Medium

- Not available

SPYWOLF

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We are a growing crypto security agency offering audits, KYCs and consulting services for some of the top names in the crypto industry.

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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.
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No applications were reviewed for security. No product code has been reviewed.